George Deodatis

Vice Dean for Research, School of Engineering & Applied Science

Santiago and Robertina Calatrava Family Professor of Civil Engineering and Engineering Mechanics

Professor of Earth and Environmental Engineering, Columbia University

George Deodatis uses probabilistic methods and uncertainty quantification for the study of civil infrastructure systems subjected to natural and technological hazards. He conducts research to determine the safety and reliability of structures and to perform risk assessment and risk management of structural systems. He also studies the effects of climate change and extreme weather on the civil infrastructure with the goal of establishing adaptation strategies. Much of his research is based on introducing novel techniques for simulation of stochastic processes and fields to model uncertain earthquake, wind, and wave loads, as well as material and soil properties, for applications in engineering mechanics, earthquake engineering, offshore engineering, wind engineering, environmental engineering, atmospheric science, oceanography, finance, and other fields.

Deodatis received a five-year Diploma in Civil Engineering from the National Technical University of Athens, Greece, in 1982. He holds M.S. and Ph.D. degrees in Civil Engineering from Columbia University, received in 1984 and 1987, respectively. He started his academic career at Princeton University where he served as Assistant Professor and Associate Professor (with tenure). He moved to Columbia University in 2002 where he served as Associate Professor and Professor, before becoming the Santiago and Robertina Calatrava Family Professor in 2007. He served as the Chair of the Department of Civil Engineering and Engineering Mechanics from 2013 to 2019. Since 2022, he also holds a joint appointment as Professor of Earth and Environmental Engineering. He currently serves as the Vice Dean for Research in the School of Engineering and Applied Science.

In 2009, Deodatis was elected President of the International Association for Structural Safety and Reliability for a 4-year term. In 2017, he was elected President of the Engineering Mechanics Institute of the American Society of Civil Engineers (ASCE) for a 2-year term. His honors and awards include the International Association for Structural Safety and Reliability (IASSAR) Distinguished Research Award in 2025, the ASCE Alfred M. Freudenthal Medal in 2024, election as Distinguished Member of ASCE in 2023, election as Fellow of the Engineering Mechanics Institute of ASCE in 2014, the Great Teacher Award from the Society of Columbia Graduates in 2011, Columbia University's Presidential Award for Outstanding Teaching in 2009, the ASCE Walter L. Huber Civil Engineering Research Prize in 1998, the IASSAR Junior Research Prize in 1997, Princeton University's Presidential Award for Distinguished Teaching in 1995, and the National Science Foundation Young Investigator Award in 1992.